

REMARKS

At the outset, the Examiner is thanked for the review and consideration of the present application. Claims 1 and 7 have been amended and Claims 1-5 and 7-8 are currently pending in the application. The basis for the amended claims can be found throughout the specification, drawings and claims of the original application, and no new matter is entered. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the remarks contained herein.

35 U.S.C. § 102 Rejections

Claims 1-2 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuroda et al., US. Patent No: 5,818,807 (hereinafter Kuroda).

The Applicant respectfully traverses the rejections at least in view of the reasons provided below.

In col. 3, lines 18-29 of Kuroda et al., an optical medium having a PCA (power calibration area) located in the innermost area of the optical medium and a LO (lead out area) located in the outermost area of the optical medium is disclosed, wherein the area between the PCA and the LO is configured to record data. Referring to col. 3, lines 30-33 in Kuroda et al., "each chapter is provided with a management information area MA in front of the area DATA for recording a management information, and a partition data area PA at the rear of the area DATA for indicating the last recording position."

Therefore, for every data recording process, three kinds of areas (MA, DATA, PA) will be formed, as illustrated in FIG. 1a. Referring to col. 3, lines 38-40 in Kuroda et al., "at a first recoding when a Chapter 1 is recorded, the test data for power calibration is

recorded in the power calibration area PAC,” and then referring to col. 3, lines 46-54, “when recording Chapter 2...the partition area PA of the Chapter 1 is read to determine whether the test data is recorded therein” and “if the partition area PA is a blank, the test data for writing data in the Chapter 2 is recorded in the blank partition area PA of the Chapter 1 for determining the optimum laser power.” That is to say, at a first recording, the test data for power calibration is recorded in the PCA; at a second recording, the test data for power calibration is recorded in the PA formed during the first recording; and at an n-th recording, the test data for power calibration is recorded in the PA formed during the (n-1)-th recording. Because the test data of power calibration for every data recording process are not recorded in the PCA except for the first recording, the number of recordings is not limited to the area of the PCA. In other words, the optical medium of Kuroda et al. is configured to increase the number of recordings.

However, as set forth in the amended claims, one of the features of the present invention as recited in Claim 1 lies in two power calibration areas located close to the center and the periphery of the storage carrier respectively, wherein a data storage area is located outside one of the power calibration areas and another power calibration areas is within a last possible lead-out area which is located outside the data storage area. On the contrary, Kuroda et al. didn't disclose the step of setting a power calibration area within a last possible lead-out area. In addition, at each data writing process, for obtaining better writing power, the present invention selects one of the power calibration areas, rather than an area formed in the preceding writing process, to perform an optical power calibration process according to the writing condition.

Therefore, the function and structure of the Applicant's method is totally different from and not anticipated by Kuroda et al. In other words, Claim 1 is patentable over Kuroda et al. In addition, Claims 2 and 8, which directly or indirectly depend on patentable Claim 1 and further limit the scope, are believed also to be patentable.

35 U.S.C. § 103 Rejections

Claims 3-5 and 7 are rejected under 35 U.S.C. 102(b) as being unpatentable over Kuroda et al. in view of Suga et al., US. Patent 6,418,102 (hereinafter Suga) or Ikeda et al., US. Patent 6,067,284 (hereinafter Ikeda).

The Applicant respectfully traverses the rejections at least in view of the reasons provided below.

As described above, Kuroda et al. disclose a method for increasing the number of recordings, not for obtaining better writing power. Therefore, the combination of Kuroda et al. and Suga et al. and/or Ikeda et al. cannot produce the effects and advantages of the present invention due to the disabilities of providing a method of the present invention, which is able to better predict the writing power.

The Applicants respectfully submit that independent Claim 1 is allowable over the combination of the cited references. In addition, Claims 2-5 and 7-8 which directly or indirectly depend on patentable Claim 1 and further limit the scope, are also believed to be patentable.

35 U.S.C. § 102 Rejections

Claims 1-5 and 7-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Chao et al., US. Patent 6,711,107 (hereinafter Chao).

The Applicant respectfully traverses the rejections at least in view of the reasons provided below.

Chao et al. disclose a disk comprising a PCA (300), a data area (304), and a lead out area (301), wherein part of the lead out area (301) is assigned as an external PCA (400). When the disk is under fixed CAV (constant angular velocity) control format, the power calibration has to be performed twice in **both** PCA (300) and PCA (400) respectively for attaining two optimum laser recording powers P1 and P2, and then a linear equation for optimized laser recording power is generated from interpolation (referring to col. 5, lines 24-39). When the disk is under variable CLV (control linear velocity) control format, the power calibration has to be performed twice in PCA (300) for attaining two optimum laser recording powers P1 and P2, and then a linear equation for optimized laser recording power is generated from extrapolation (referring to col. 5, lines 40-62).

Therefore, in the method of Chao et al., the power calibration has to be performed twice, either in both PCA (300) and PCA (400) or in PCA (300) only, and after obtaining two power values, the optimum power can be determined by extrapolation or interpolation according to the data writing location.

However, as illustrated in Claim 1, one feature of the method of the present invention is to determine whether the determined writing condition in the data storage

area is within a predetermined condition or not, and according to the determining result to select one of the first power calibration area and the second power calibration area to perform an optical power calibration process to determine a calibrated writing power.

Under the fixed CAV control format, the access device of Chao et al. has to move to the outer area of the disk (PCA (400)), to inner area of the disk (PCA (300)), and back to the data writing location, which increases the moving distance and time consumption for the power calibration. Under the variable CLV (control linear velocity) control format, access device of Chao et al. also has to perform the power calibration twice, which also increases time consumption for the power calibration. On the contrary, the present method selects **one** of the first power calibration area and the second power calibration area to perform (according to the writing condition of the data, for example the writing location of data) for power calibration and perform the power calibration, and therefore, the method of the Applicants' method is totally different from and not anticipated by Chao et al. In other words, Claim 1 is patentable over Chao et al.


Therefore, the method disclosed by Chao et al. does not anticipate over the Applicants' method. The Applicants respectfully submit that independent Claim 1 is allowable over Chao et al. In addition, Claims 2-5 and 7-8, which directly or indirectly depend on patentable Claim 1 and further limit the scope, are also believed to be patentable.

Conclusion

In light of the above remarks, the Applicants respectfully submit that all the pending claims are in condition for allowance, and respectfully request the withdrawal of the rejections. Accordingly, a Notice of Allowance is respectfully requested.

Respectfully submitted,

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